1	**REMARKS**

2

3   At the time of the Fifth Office Action dated June 5, 2009, claims 15-18 were pending and

4 rejected in this application.

5

6   **CLAIMS 15-18 ARE REJECTED UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED UPON**

7 **HOLMBERG ET AL., U.S. PATENT NO. 6,247,141 (HEREINAFTER HOLMBERG), IN VIEW OF**

8 **APPLICANTS' ADMITTED PRIOR ART (HEREINAFTER THE ADMITTED PRIOR ART), RIZVI ET**

9 **AL., U.S. PATENT NO. 6,490,610 (HEREINAFTER RIZVI), AND HELMER ET AL., U.S. PATENT NO.**

10 **6,411,991 (HEREINAFTER HELMER)**

11   On pages 2-6 of the Fifth Office Action, the Examiner concluded that one having ordinary

12 skill in the art would have considered the claimed invention to be obvious in view of Holmberg, the

13 Admitted Prior Art, Rizvi, and Helmer. This rejection is respectfully traversed.

14

15   On October 10, 2007, the Patent Office issued the "Examination Guidelines for

16 Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in KSR

17 International Co. v. Teleflex Inc.," 72 Fed. Reg. 57,526 (2007) (hereinafter the Examination

18 Guidelines). Section III is entitled "Rationales To Support Rejections Under 35 U.S.C. 103."

19 Within this section is the following quote from the Supreme Court: "rejections on obviousness

20 grounds cannot be sustained by merely conclusory statements; instead there must be some

21 articulated reasoning with some rational underpinning to support the legal conclusion of

22 obviousness." KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007) (quoting In re Kahn,

23 441 F.3d 977, 988 (Fed. Cir. 2006)).

1

2   Referring to the first column on page 57,529 of the Examination Guidelines for

3   Determining Obviousness, the following is a list of rationales that may be used to support a

4   finding of obviousness under 35 U.S.C. § 103:

5   (A) Combining prior art elements according to known methods to yield

6   predictable results;

7   (B) Simple substitution of one known element for another to obtain

8   predictable results;

9   (C) Use of known technique to improve similar devices (methods, or

10   products) in the same way;

11   (D) Applying a known technique to a known device (method, or product)

12   ready for improvement to yield predictable results;

13   (E) "Obvious to try" - choosing from a finite number of identified,

14   predictable solutions, with a reasonable expectation of success;

15   (F) Known work in one field of endeavor may prompt variations of it for

16   use in either the same field or a different one based on design incentives or other

17   market forces if the variations would have been predictable to one of ordinary

18   skill in the art;

19   (G) Some teaching, suggestion, or motivation in the prior art that would

20   have led one of ordinary skill to modify the prior art reference or to combine prior

21   art reference teachings to arrive at the claimed invention.

22

23   Upon reviewing the Examiner's analysis on pages 4 and 5 of the Fifth Office Action, the

24   Examiner appears to be employing rationale (G). However, the Examiner's analysis is not

25   entirely clear as to what rationale the Examiner is employing. Applicants, therefore, request that

26   the Examiner <u>clearly identify</u> the rationale, as described in the Examination Guidelines for

27   Determining Obviousness, being employed by the Examiner in rejecting the claims under 35

28   U.S.C. § 103.

1

2   Referring again to rationale (G), as discussed on page 57,534 of the Examination Guidelines

3   for Determining Obviousness, the following findings of fact <u>must</u> be articulated by the Examiner:

4   (1) a finding that there was some teaching, suggestion, or motivation,

5   either in the references themselves or in the knowledge generally available to one

6   of ordinary skill in the art, to modify the reference or to combine reference

7   teachings;

8   (2) a finding that there was reasonable expectation of success; and

9   (3) whatever additional findings based on the Graham factual inquiries

10   may be necessary, in view of the facts of the case under consideration, to explain

11   a conclusion of obviousness.

12

13   Referring to the paragraph entitled "Office Personnel as Factfinders" on page 57,527 of

14   the Examination guidelines, the following was stated:

15   Office personnel fulfill the critical role of factfinder when resolving the

16   *Graham* inquiries. It must be remembered that while the ultimate determination of

17   obviousness is a legal conclusion, the underlying *Graham* inquiries are factual.

18   When making an obviousness rejection, Office personnel must therefore ensure

19   that the written record includes findings of fact concerning the state of the art and

20   the teachings of the references applied. In certain circumstances, it may also be

21   important to include explicit findings as to how a person of ordinary skill would

22   have understood prior art teachings, or what a person of ordinary skill would have

23   known or could have done. Factual findings made by Office personnel are the

24   necessary underpinnings to establish obviousness.

25

26   In <u>Graham v. John Deere Co.</u>, 383 U.S. 1, 148 USPQ 459 (1966), the Supreme Court set

27   forth the factual inquiries that are to be applied when establishing a background for determining

28   obviousness under 35 U.S.C. 103. These factual inquiries are summarized as follows:

1   (A) Determine the scope and content of the prior art;

2   (B) Ascertain the differences between the prior art and the claims at issue;

3   (C) Resolve the level of ordinary skill in the pertinent art; and

4   (D) Evaluate any indicia of nonobviousness.

5

6   However, in order to make a proper comparison between the claimed invention and the prior art,

7   the language of the claims must first be properly construed. See In re Paulsen, 30 F.3d 1475,

8   1479 (Fed. Cir. 1994). See also, Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1567-68

9   (Fed. Cir. 1987) (In making a patentability determination, analysis must begin with the question,

10   "what is the invention claimed?" since "[c]laim interpretation, ... will normally control the

11   remainder of the decisional process.") See Gechter v. Davidson, 116 F.3d 1454, 1460 (Fed. Cir.

12   1997) (requiring explicit claim construction as to any terms in dispute).

13

14   Holmberg

15   Independent claim 15, in part, recites the following limitations:

16   receiving, by the second application server, the request from the first

17   application server;

18   generating, by the second application server, a response to the request;

19   forwarding, by the second application, the response to the first application

20   server;

21   receiving, by the first application server, the response from the second

22   application server; and

23   forwarding, by the first application server, the response to the application

24   client.

25

26   Regarding all of the above-reproduced limitations, the Examiner merely cited to column 3, lines

27   5-22 of Holmberg, which for ease of reference, is reproduced below:

1   FIG. 1 is a block diagram that illustrates the use of redundant servers in a client-server
2 application. In particular, a plurality of client applications, C, are shown. A primary server, S 101,
3 runs on a first processor 103. A second processor 105, which is separate from the first processor
4 103, runs a backup server, S' 107, in parallel with the primary server S 101. Overall, so that when
5 one fails, the other can take over without any client application C noticing the problem, the
6 primary server S 101 and the backup server S' 107 should have the same internal state at a virtual
7 time, T, that occurs after processing any specific request from the client application C. (Since the
8 backup server S' 107 trails the primary server S 101, the backup server S' 107 reaches the virtual
9 time later in real time than the primary server S 101 does.) The existence of replicated server
10 processes should not be visible to the client applications C using the server. In order to implement
11 such a strategy, the following problems need to be solved:
12

13   The first of the above-reproduced phrases recites "receiving, by the second application

14 server, the request from the first application server." As readily apparent from viewing Figure 1,

15 which is the subject of column 3, lines 5-22, the requests are directed from client applications C

16 to either the primary sever S 101 or the backup sever S' 107. Additionally, there is no disclosure

17 of communication between the primary sever S 101 and the backup sever S' 107. Thus, despite

18 the Examiner's assertion to the contrary, Holmberg fails to teach that the second application

19 server (i.e., allegedly disclosed by backup server S' 107) receives a request from the first

20 application server (i.e., allegedly disclosed by primary server S 101).

21

22   Applicants, therefore, respectfully submit that the Examiner has committed error by

23 improperly determining the scope and content of the prior art, which is one of the Graham

24 factual inquiries. Additionally, since the Examiner has failed to recognize that Holmberg does

25 not teach all the limitations for which the Examiner is relying upon Holmberg to teach, the

26 Examiner has also committed error by failing to properly ascertain the differences between the

27 prior art and the claims at issue, which is another one of the Graham factual inquiries. Thus, the

28 Examiner has not set forth a proper prima facie of obviousness.

29

30

1   The third and fourth of the above-reproduced phrases recite "forwarding, by the second

2   application, the response to the first application server" and "receiving, by the first application

3   server, the response from the second application server." As readily apparent from viewing

4   Figure 1, which is the subject of column 3, lines 5-22, the alleged second application server (i.e.,

5   backup server S' 107) forwards a response (i.e., allegedly disclosed by the reply) to the client

6   applications C. Additionally, there is no disclosure of communication between the primary sever

7   S 101 and the backup sever S' 107. Thus, despite the Examiner's assertion to the contrary,

8   Holmberg fails to teach either the second application server forwarding the response to the first

9   application server or the first application receiving the response from the second application

10   server.

11

12   Applicants, therefore, respectfully submit that the Examiner has committed error by

13   improperly determining the scope and content of the prior art, which is one of the <u>Graham</u>

14   factual inquiries. Additionally, since the Examiner has failed to recognize that Holmberg does

15   not teach all the limitations for which the Examiner is relying upon Holmberg to teach, the

16   Examiner has also committed error by failing to properly ascertain the differences between the

17   prior art and the claims at issue, which is another one of the <u>Graham</u> factual inquiries. Thus, the

18   Examiner has not set forth a proper prima facie of obviousness.

19

20   _____

21   The second and fifth of the above-reproduced phrases recite "generating, by the second

22   application server, a response to the request" and "forwarding, by the first application server, the

23   response to the application client." Although the Examiner's cited passage describes the alleged

1   second application server (i.e., backup server S' 107) generating a response, the alleged first

2   application server (i.e., primary server S 101) does not forward this same generated response to

3   the alleged application client (i.e., client application C). Instead, the alleged second application

4   server forwards the reply it generated directly to alleged application client, and the alleged first

5   application server forwards the reply it generated directly to alleged application client.

6

7   Applicants, therefore, respectfully submit that the Examiner has committed error by

8   improperly determining the scope and content of the prior art, which is one of the <u>Graham</u>

9   factual inquiries. Additionally, since the Examiner has failed to recognize that Holmberg does

10   not teach all the limitations for which the Examiner is relying upon Holmberg to teach, the

11   Examiner has also committed error by failing to properly ascertain the differences between the

12   prior art and the claims at issue, which is another one of the <u>Graham</u> factual inquiries. Thus, the

13   Examiner has not set forth a proper prima facie of obviousness.

14

15

16   <u>Admitted Prior Art</u>

17   In the first and second full paragraphs on page 4 of the Fifth Office Action, the Examiner

18   asserted the following:

19   Holmberg fails to teach the limitation further including detecting by the first application
20   server that a database is not accessible.
21   However, AAPA teaches the use of an application server informing the application client
22   about the loss of a connection to a database, which must be happen after the application server
23   detects the loss of the connection (page 1, paragraph 2).
24
25   Applicants respectfully disagree with the Examiner's analysis.

26

1   For ease of reference, the first two paragraphs on page 1 of Applicants' disclosure is

2 reproduced below:

3   The invention relates to a method of operating a computer system, wherein said computer
4   system comprises at least one application client, at least two application servers which are suitable
5   to process requests of the application clients, and a database which may be accessed by the two
6   application servers. The invention also relates to a corresponding computer program or computer
7   program product as well as to a corresponding computer system.
8   If e.g. the first one of the two application servers has no connection anymore to the
9   database, or if e.g. the database management system of the first application server has an abnormal
10   termination, i.e. if the first application server fails to access the database, then, in prior art
11   computer systems, the application client is informed by the failing application server about the
12   loss of connection to the database. Then, the application client may select e.g. the second
13   application server in order to have this application server process the request of the application
14   client.
15

16   As readily apparent from reading these two paragraphs in combination, the second

17 paragraph refers to the second paragraph. For example, the second paragraphs refers to "the first

18 one of the two application servers" (emphasis added), while the first paragraph introduces the

19 concept of two application servers. Thus, the first and second paragraphs are discussing the

20 same thing, and as described in paragraph one, this "same thing" involves Applicants' inventive

21 concept. Thus, paragraph 2 on page 1 of Applicants' specification is not Admitted Prior Art, as

22 alleged by the Examiner.

23

24   In contrast, the paragraph spanning pages 2 and 3 and the first two full paragraphs on

25 page 3 of Applicants' specification refers to the prior art. Therefore, the Examiner has

26 committed legal error by asserting that Applicants have admitted that the teachings found in the

27 second paragraph on page 1 of Applicants' disclosure is prior art.

28

29 _____

30

1   Rizvi

2   In the first and second full paragraphs on page 5 of the Fifth Office Action, the Examiner

3   asserted the following:

4   Holmberg also fails to teach the limitation further including the use of a second
5   application server when the first application server is not being able to access a database.
6   However, Rizvi teaches a method and apparatus for implementing an automatic failover
7   mechanism for clients accessing a resource through a server (see abstract). Rizvi teaches the use
8   of an automatic failover system (col. 3, line 33 — col. 4, line 20).
9

10   The secondary reference of Rizvi does not cure the above-identified deficiency of

11   Holmberg. Instead, when a failure occurs, Rizvi teaches that a client driver interface 204 detects

12   the failure of a database session 218 (column 4, lines 33-51). Upon the failure being detected, an

13   "automatic failover" occurs (column 4, lines 52-53), in which "a new database session [is

14   created] by reconnecting the client to an active database server" (column 3, lines 33-53; column

15   4, line 66 though column 5, line 3).

16

17   In both Holmberg and Rizvi, a new primary server (Holmberg) or new database server

18   (Rizvi) is selected in place of the original server, and after failure, the client communicates with

19   the new server ("[t]he backup server S' 107 takes over execution … and starts receiving requests

20   from the clients C;" column 6, lines 41-43 of Holmberg)("client driver interface 204

21   automatically connects to database server 210 creating database session 220;" column 5, lines 4-

22   11). Thus, the applied prior art teaches that the alleged client application connects directly with

23   the server that generates the response to the request. In contrast, as recited in claim 16, the

24   second application server (which generates the response) receives the request from the first

25   application server.

26

1

2   Helmer

3   In the first and second full paragraphs on page 5 of the Fifth Office Action, the Examiner

4   asserted the following:

5   Holmberg also fails to teach the limitation further including sending a request from the
6   first application server to the second application server.
7   However, Helmer teaches a geographic data replication system and method for a network
8   (see abstract). Helmer teaches the use of a failed server routing requests to a remote server for
9   processing (col. 2, lines 2-15, 46-59).
10
11   At the outset, Applicants note that the Examiner's analysis is inconsistent with the Examiner's

12   prior statement that column 3, lines 5-22 of Holmberg teaches "receiving, by the second

13   application server, the request from the first application server." Since, as admitted by the

14   Examiner, Holmberg fails to teach "sending a request from the first application server to the

15   second application server," Holmberg cannot then teach "receiving, by the second application

16   server, the request from the first application server," as previously alleged by the Examiner.

17

18   For ease of reference, the Examiner's cited passages of column 2, lines 2-15 and 46-59

19   are reproduced below:

20   The present invention is directed to a geographic data replication system and method.
21   According to one feature of the invention, temporary data for a local server is replicated
22   periodically to a remote server. According to a second feature, the temporary data for the remote
23   server is replicated to the local server. Replication includes copying temporary data to file servers
24   associated with the local and remote servers. Advantageously, an architecture according to the
25   present invention allows for about 100% service availability. If a server fails, such as the local
26   server, the remote server begins processing user requests based on the temporary data it received
27   from the local server. Failure of a server may not result in failure of services or loss of previously
28   generated temporary data.
29   Referring to FIGS. 1-3, embodiments of a system and associated methods for replicating
30   temporary data are shown. The temporary data associated with at least two geographically remote
31   servers is replicated between the servers. If a server generates temporary data associated with a
32   user, such as identifying selected shopping items, the temporary data is replicated to a remote
33   server. If the local server fails, the user request is routed to the remote server. The remote server
34   processes the request with the benefit of the previously generated temporary data. Temporary data,
35   such as data identifying the selected shopping items, is applied by the remote server without
36   repetitive user input or processing. Therefore, about 100% service availability is provided.
37   (emphasis added)

1

2   Referring to the above-reproduced passages, nowhere do these cited passages describe

3   that the Holmberg teaches "sending a request from the first application server to the second

4   application server," as claimed. At best, Holmberg teaches "sending a request … to the second

5   application server." Thus, the Examiner has committed error by failing to properly ascertain the

6   differences between the applied prior art and the claims at issue, which is one of the <u>Graham</u>

7   factual inquiries.

8

9   The Examiner's obviousness analysis regarding the Helmer is found in the third full

10   paragraph on page 5 of the Fifth Office Action and is reproduced below:

11   It would have been obvious to one of ordinary skill in the art at the time of the invention
12   to modify Holmberg in view of Helmer to send a request from the first application server to the
13   second application server. One would be motivated to do so because it would be a faster and more
14   efficient backup for the server to forward the data to the backup server.
15
16   Applicants respectfully disagree with the Examiner's analysis.

17

18   The Examiner's alleged rationale for the motivation (i.e., "it would be a faster and more

19   efficient backup for the server to forward the data to the backup server") is <u>independent</u> of the

20   proposed modification. The Examiner's asserted benefit is a result of temporary data, which is

21   generated by a local server, being replicated in a remote server. As described in column 2, lines

22   52-55, if the local server fails, the remote server processes the request with the benefit of the

23   previously generated temporary data. This proposed benefit is <u>independent</u> as what entity sends

24   the request to the second application server (i.e., allegedly disclosed by the remote server) since

25   the identity of the entity does not affect how the proposed is realized. Therefore, the Examiner

1   has failed to articulated a reasoning <u>with some rational underpinning</u> to support the Examiner's

2   legal conclusion of obviousness.

3

4   For the above-described reasons, the Examiner has failed to establish that the claimed

5   invention, as recited in claims 15-18, would have been obvious within the meaning of 35 U.S.C. §

6   103. Applicants, therefore, respectfully solicit withdrawal of the imposed rejection of claims 15-18

7   under 35 U.S.C. § 103 for obviousness based upon Holmberg, the Admitted Prior Art, Rizvi, and

8   Helmer.

Applicants have made every effort to present claims which distinguish over the prior art, and it is believed that all claims are in condition for allowance. However, Applicants invite the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. Accordingly, and in view of the foregoing remarks, Applicants hereby respectfully request reconsideration and prompt allowance of the pending claims.

Although Applicants believe that all claims are in condition for allowance, the Examiner is directed to the following statement found in M.P.E.P. § 706(II):

> When an application discloses patentable subject matter and it is apparent from the claims and the applicant's arguments that the claims are intended to be directed to such patentable subject matter, but the claims in their present form cannot be allowed because of defects in form or omission of a limitation, the examiner should not stop with a bare objection or rejection of the claims. The examiner's action should be constructive in nature and when possible should offer a definite suggestion for correction. (emphasis added)

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 09-0461, and please credit any excess fees to such deposit account.

Date: September 8, 2009

Respectfully submitted,

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